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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,427	10/21/2003	Giancarlo Fenzi	FENZI 3 DIV	3827
25889	7590	11/30/2004	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			LORENZO, JERRY A	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/690,427

Applicant(s)

FENZI, GIANCARLO

Examiner

Jerry A. Lorengo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/242,994.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/21/03&02/19/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

(1)

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,750,965 to Pippel et al. in view of U.S. Patent No. 3,574,040 to Chitwood et al.

Regarding applicant claim 1, Pippel et al. disclose an apparatus capable of applying sections of transferable tape (strip-like flexible support) onto a substrate comprising (Figures 1, 3, 6 and 7):

(1) A translating arrangement capable of moving a tape applying means 20 relative to a longitudinal axis of a substrate (section) 22 (Figure 1; column 6, line 37 to column 7, line 68);

(2) An unwinding device (supply reel 70 and motor 84) capable of unwinding a reel (coil) of transfer tape (comprising a strip-like flexible support 74 having a transferable coating 72 thereon) (Figure 3; column 8, lines 3-23);

(3) A rotary nip roller assembly (laydown roller) 60 which is capable of elastically complying (through spring 112) with the surface topography of the substrate 22 to which the tape is to be applied such that the tape is pressed against the surface of the substrate 22 as the tape

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applying means 20 is translated relative to the substrate 22 (Figures 6, 7 and 14; column 9, lines 36-59); and

(4) A rewinding device (take-up reel 82 and motor 86) capable of rewinding the strip-like flexible support 74 onto a take-up reel (coil) 82 after the transferable coating 72 of the tape has been applied to the surface of the substrate 22 (Figure 3; column 8, lines 24-47). The apparatus of Pippel et al. is illustrated below:

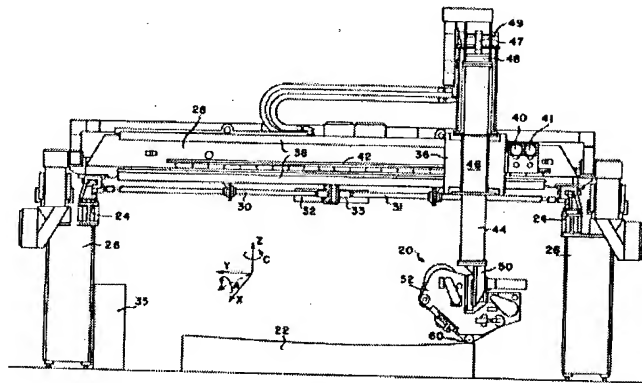


FIG. 1

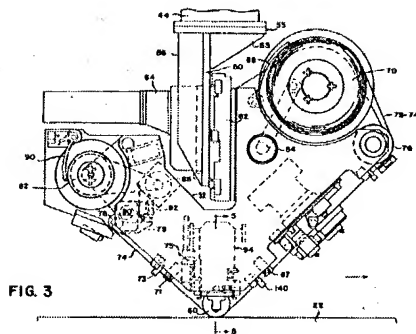


FIG. 3

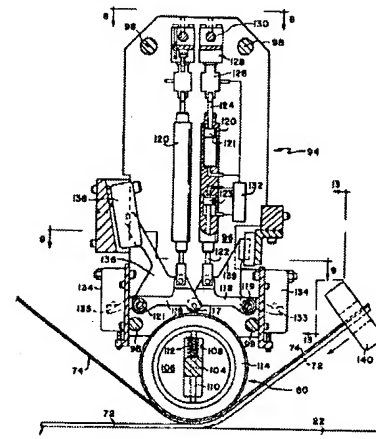


FIG. 7

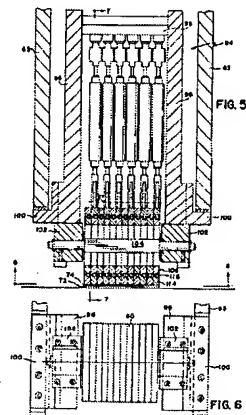


FIG. 5

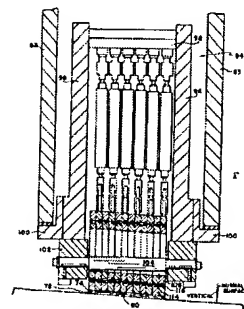


FIG. 14

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Pippel et al., however, do not specifically disclose, as per applicant claim 1, that the rotary nip roller (lay down roller assembly) 60 is heated by way of a heating device.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the lay down roller assembly 60 of Pippel et al. with a heating device motivated by the fact that Chitwood et al., also drawn to apparatus capable of applying sections of tape onto a substrate, disclose that the simultaneous application of heat to the tape with the application of pressure assures that the desired adhesion of the tape to the substrate takes place by inducing a tackiness in the tape (column 4, lines 5-15). Chitwood et al. disclose that this heating may be accomplished by the inclusion of a heating device directly into the pressure application foot (column 6, lines 10-28).

Regarding applicant claim 2, Pippel et al. disclose that the translating arrangement is capable of moving a tape applying means 20 relative to a longitudinal axis of a substrate (section) 22 in both a horizontal X-Y, vertical Z and oblique (rotational) A planes (Figure 1; column 6, lines 42-45).

Regarding applicant claim 3, Pippel et al. disclose that the lay-down roller assembly 60 is capable of having an inclined rotation axis (Figure 14).

Regarding applicant claim 4, Chitwood et al. disclose that the heating device may comprise a thermostatically controlled electrical resistance elements which would be capable of electronic control (column 6, lines 19-22).

Regarding applicant claims 5 and 6, Pippel et al. disclose that the lay down roller assembly 60 comprises a plurality of rollers so arranged as to be capable of pressing adjacent portions of the transfer tape (Figures 6 and 14; column 9, lines 35-65).

Regarding applicant claim 7, Pippel et al. disclose that the formed substrate is supported by a lay down surface or mandrel (reinforcement pad) to support the tapes as they are laid down (Figures 1 and 16; column 1, lines 49-60; column 6, lines 39-42).

Regarding applicant claim 8, Pippel et al. disclose that the apparatus is typically arranged in cooperation with an autoclaving oven wherein the taped substrate is heated to cure and consolidated the laid down tape sections (column 1, lines 33-37).

(2)

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as combined in section (1), above, in further view of U.S. Patent No. 4,086,378 to Kam et al.

The references as combined above disclose an apparatus which includes a means for the oven heat treatment of the tape coated substrate. Although they do not specifically disclose the oven types set forth in applicant claim 9, it would have been obvious to one of ordinary skill in the art to utilize any suitable curing oven motivated by the fact that such ovens, such as the air circulating oven taught by Kam et al. (column 5, lines 2-22), are known in the art as suitable for the heat treatment of tape lay-up composites of the type formed by the apparatus resulting from the combination of the Pippel et al. and Chitwood et al. references in section (1), above.

(3)

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the translating arrangement, the unwinding device, the rotary nip roller, the heating device, the rewinding device, the reinforcement pads and the oven must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

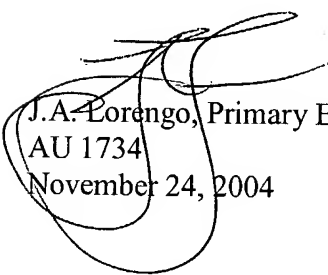
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(4)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (571) 272-1233. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.A. Lorengo, Primary Examiner

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November 24, 2004